

## STATE OF TENNESSEE **DEPARTMENT OF HEALTH ENVIRONMENTAL LABORATORIES**

TDH: Lab Services JRL Lab Services - Jackson Regional Lab Jackson, TN 38301 731-426-0686

TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

Sent To:

Michael Atchlev

**TDEC-WPC** Knoxville FO

3711 Middlebrook Pike Knoxville, TN 37921

K00002082 Lab ID:

**Knoxville Regional Laboratory** 

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327,34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

K00002082001

**Project Name:** 

Sample Description:

Emory River mile 0.1

Sampler Project Name:

TVA ASH

Project Site No.:

Depth 15 feet

Station No.:

Date/Time Collected:

01/02/2009

11:00

Sampler's Name:

V. McFall

County: Sample Matrix: ROANE - 73

EFO:

Water Knoxville

Sampling Agency:

TDEC-WPC

Billing Code: Send Report To:

327.34-20 TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

01/02/2009

14:50

Received By:

E McCrary

**Field Determinations** 

pH:

7.73

pH Units

Chlorine, residual:

Conductivity:

288.0

uMHO

Temperature: Dissolved Oxygen: 8.56 9.79

mg/L

Other:

Flow:

**CFS** 

TEST: Alkalinity, Total	MET	HOD: EPA 310	.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	S Burchfield	1/4/2009

TEST: Hardness, Calcium	MET	HOD: SM 3500	-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	85	mg/L	0.7	1	S Burchfield	1/4/2009

TEST: Residue, Suspended	MET	HOD: SM 2540	D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/8/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002082002

**Project Name:** 

**Sample Description:** 

Tennessee River Surface

Sampler Project Name: TVA ASH **Project Site No.:** 

Mile 568.5

Station No.:

**Date/Time Collected:** Sampler's Name:

01/02/2009

M. Atchley

County:

ROANE - 73

**Sample Matrix:** EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC

Billing Code: Send Report To: Agency Invoiced: 327.34-20 **TDEC-WPC** TDEC-WPC

**Priority Date:** 

Date/Time Received:

01/02/2009

14:50

11:28

Received By:

E McCrary

**Field Determinations** 

pH: 7.1

Chlorine, residual:

175

pH Units

Conductivity: Temperature:

7.8

**uMHO** 

Dissolved Oxygen: 10.6

Other: Flow:

mg/L **CFS** 

TEST: Alkalinity, Total	ME.	THOD: EPA 31	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	53	mg/L	3.8	10	S Burchfield	1/4/2009

TEST: Hardness, Calcium	ME:	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	40	mg/L	0.7	1	S Burchfield	1/4/2009

TEST: Residue, Suspended	ME:	THOD: SM 254	0D .			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/8/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

Sample Description:

K00002082003

**Project Name:** 

Tennessee River @ 15 ft

Sampler Project Name: TVA ASH

Project Site No.:

Mile 568.5

Station No.:

**Date/Time Collected:** 

01/02/2009 11:37

Sampler's Name: County:

M. Atchley ROANE - 73

Sample Matrix: EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC 327.34-20

Billing Code: Send Report To: Agency Invoiced:

TDEC-WPC

**Priority Date:** 

**Date/Time Received:** 

01/02/2009

14:50

Received By:

E McCrary

Chlorine, residua	al:	•
Conductivity:	175	uMHO
Temperature:	7.8	

**Field Determinations** 

Dissolved Oxygen: 10.6 mg/L

7.1

pH Units

Other:

рH:

Flow: CFS

TEST: Alkalinity, Total	MET	THOD: EPA 31	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	52	mg/L	3.8	10	S Burchfield	1/4/2009

TEST: Hardness, Calcium	ME	THOD: SM 350	0-Ca D	•		
ANALYTE	RESULT	UNITS	MDL.	MQL	ANALYZED BY:	DATE
Calcium hardness	43	mg/L	0.7	1	S Burchfield	1/4/2009

TEST: Residue, Suspended	ME	THOD: SM 254	0D				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/8/2009	

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002082004

**Project Name:** 

Sample Description:

Emory River mile 2.1

Sampler Project Name: TVA ASH **Project Site No.:** 

Depth 3.5 feet

Station No.:

**Date/Time Collected:** 

01/02/2009 11:50

Sampler's Name: County:

V. McFall

**Sample Matrix:** 

**ROANE - 73** 

EFO:

Water Knoxville

**Sampling Agency:** Billing Code:

**TDEC-WPC** 327.34-20

**Send Report To:** Agency Invoiced:

**TDEC-WPC** TDEC-WPC

**Priority Date:** 

**Date/Time Received:** 

01/02/2009 14:50

Received By:

E McCrary

TEST: Alkalinity, Total	, ME	THOD: EPA 31	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	DATE	
Total Alkalinity	13	mg/L	3.8	10	S Burchfield	1/4/2009

**Field Determinations** 

Dissolved Oxygen: 10.85

Chlorine, residual:

Conductivity:

Temperature:

7.03

67.8

7.55

pH Units

**uMHO** 

mg/L

**CFS** 

pH:

Other:

Flow:

TEST: Hardness, Calcium	ME.	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	17	mg/L	0.7	1	S Burchfield	1/4/2009

TEST: Residue, Suspended METHOD: SM 2540D							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Suspended Solids	10	mg/L	10	10	S Burchfield	1/8/2009	

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

**MQL - Method Quantitation Limit** 

K00002082005

**Project Name:** 

Sample Description:

**Emory River Mile 4.0** 

Sampler Project Name: TVA ASH **Project Site No.:** 

**Station No.: Date/Time Collected:**  Depth 15 feet

Sampler's Name:

01/02/2009 V. McFall

County:

**ROANE - 73** 

Sample Matrix:

Water

EFO: Sampling Agency: Knoxville TDEC-WPC

**Billing Code:** Send Report To: 327.34-20 TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

Agency Invoiced:

01/02/2009

14:50

12:25

Received By:

E McCrary

**Field Determinations** 

Dissolved Oxygen: 10.65

pH:

7.07

pH Units

Chlorine, residual:

Conductivity:

71.1

uMHO

Temperature:

7.40

mg/L

Other:

Flow:

**CFS** 

TEST: Alkalinity, Total	METHOD: EPA 310.2						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Total Alkalinity	15	mg/L	3.8	10	S Burchfield	1/4/2009	

TEST: Hardness, Calcium	METHOD: SM 3500-Ca D					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	19	mg/L	0.7	1	S Burchfield	1/4/2009

TEST: Residue, Suspended	ME	THOD: SM 254	IOD			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	U	mg/L	10	10	S Burchfield	1/8/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit

K00002082006

**Project Name:** 

Sample Description:

Clinch River 4.0

Sampler Project Name: TVA ASH

**Project Site No.:** 

Station No.:

**Date/Time Collected:** 

01/02/2009 12:35

Sampler's Name:

M. Atchley

County: **Sample Matrix:** 

**ROANE - 73** Water

EFO:

Knoxville

Sampling Agency:

TDEC-WPC

**Billing Code: Send Report To:**  327.34-20 TDEC-WPC

**Agency Invoiced: Priority Date:** 

TDEC-WPC

Date/Time Received:

01/02/2009

14:50

Received By:

E McCrary

Temperature:	8.59	
Dissolved Oxygen:	9.8	mg/L

7.5

302

**Field Determinations** 

Chlorine, residual:

Conductivity:

Other: Flow:

pH:

CFS

pH Units

uMHO

TEST: Alkalinity, Total	ME	THOD: EPA 31	0.2			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Alkalinity	110	mg/L	3.8	10	S Burchfield	1/4/2009

TEST: Hardness, Calcium	ME	THOD: SM 350	0-Ca D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Calcium hardness	93	mg/L	0.7	1	S Burchfield	1/4/2009

TEST: Residue, Suspended	ME.	THOD: SM 254	0D			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Total Suspended Solids	· U	mg/L	10	10	S Burchfield	1/8/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 



## STATE OF TENNESSEE DEPARTMENT OF HEALTH **ENVIRONMENTAL LABORATORIES**

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TDH: Lab Services KRL Lab Services - Knoxville Regional Lab Knoxville, TN 37920 865-549-5201

TDH: Lab Services NCL Lab Services - Nashville Central Lab Nashville, TN 37243 615-262-6300

Sent To:

Michael Atchley

TDEC-WPC Knoxville FO

3711 Middlebrook Pike Knoxville, TN 37921

Lab ID: K00002082

Knoxville Regional Laboratory

Sampling Agency: TDEC: Division of Water Pollution Control

Billing Code:

327.34-20

This is to certify that the following results were determined using good laboratory pratices and in accordance with federal or state approved methodologies.

Analytical Supervisor

K00002082001

**Project Name:** 

**Sample Description:** 

Emory River mile 0.1

Sampler Project Name: TVA ASH **Project Site No.:** 

Depth 15 feet

**Station No.:** 

**Date/Time Collected:** 

01/02/2009 11:00

Sampler's Name: County:

V. McFall **ROANE - 73** 

**Sample Matrix:** EFO:

Water Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20 **TDEC-WPC** 

Send Report To: Agency Invoiced:

TDEC-WPC

**Priority Date:** 

**Date/Time Received:** 

01/02/2009

14:50

Received By:

E McCrary

**Field Determinations** 

pH: 7.73

Chlorine, residual:

Conductivity: 288.0

8.56

**uMHO** 

pH Units

Temperature: Dissolved Oxygen: 9.79

mg/L

Other:

Flow:

**CFS** 

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL.	ANALYZED BY:	DATE
Digestion Metals	01/04/2009			•	A Wilson	1/4/2009

TEST: ICP-MS	MET	THOD: EPA 200	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	U	μg/L	0.93	5	M Pattanayek	1/4/2009
Barium	33	μg/L	2.5	5	M Pattanayek	1/4/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	1/4/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/4/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	1/4/2009
Cobalt	0.21J	μg/L	0.04	1	M Pattanayek	1/4/2009
Lead	0.31J	μg/L	0.10	1	M Pattanayek	1/4/2009
Manganese	35	μg/L	0.42	· 1	M Pattanayek	1/4/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	1/4/2009
Strontium	100	μg/L	0.47	. 1	M Pattanayek	1/4/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	1/4/2009
Uranium	0.32J	μg/L	0.01	1	M Pattanayek	1/4/2009
Vanadium	U	μg/L	3.4	5	M Pattanayek	1/4/2009

TEST: Mercury	METHOD: EPA 245.1					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	μg/L	0.13	0.2	A Wilson	1/4/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002082002

**Project Name:** 

**Sample Description:** 

Tennessee River Surface

11:28

Sampler Project Name: TVA ASH **Project Site No.:** 

Mile 568.5

**Station No.:** 

**Date/Time Collected:** 

01/02/2009

Sampler's Name:

M. Atchley

County:

**ROANE - 73** 

**Sample Matrix:** EFO:

Water Knoxville

Sampling Agency: **Billing Code:** 

TDEC-WPC 327.34-20

Send Report To: Agency Invoiced: TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

01/02/2009 14:50

Received By:

E McCrary

**Field Determinations** 

pH:

7.1

pH Units

Chlorine, residual:

Conductivity:

175

**uMHO** 

Temperature: **Dissolved Oxygen: 10.6** 

7.8

mg/L

Other:

Flow:

**CFS** 

TEST: Digestion Metals	MET					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/04/2009				A Wilson	1/4/2009

TEST: ICP-MS	MET	THOD: EPA 200	0.8		•	
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	, n	μg/L	0.93	5	M Pattanayek	1/4/2009
Barium	20	μg/L	2.5	5	M Pattanayek	1/4/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	- 1/4/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/4/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	1/4/2009
Cobalt	0.15J	μg/L	0.04	1	M Pattanayek	1/4/2009
Lead	0.23J	μg/L	0.10	• 1	M Pattanayek	1/4/2009
Manganese	42	μg/L	0.42	1	M Pattanayek	1/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/4/2009
Strontium	62	μg/L	0.47	1	M Pattanayek	1/4/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	1/4/2009
Uranium	0.09J	μg/L	0.01	1	M Pattanayek	1/4/2009
Vanadium	U	μg/L	3.4	5	M Pattanayek	1/4/2009

TEST: Mercury	ME	ΓHOD: EPA 24	5.1			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	μg/L	0.13	0.2	A Wilson	1/4/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002082003

**Project Name:** 

**Sample Description:** 

Tennessee River @ 15 ft

Sampler Project Name: TVA ASH **Project Site No.:** 

Mile 568.5

Station No.:

**Date/Time Collected:** 

01/02/2009 11:37

Sampler's Name: County:

M. Atchley

**Sample Matrix:** 

**ROANE - 73** Water

EFO: Sampling Agency: Knoxville

**Billing Code: Send Report To:**  TDEC-WPC 327.34-20 TDEC-WPC

Agency Invoiced:

**TDEC-WPC** 

**Priority Date:** 

Date/Time Received:

01/02/2009

14:50

Received By:

E McCrary

· opo.acc			
Dissolved	Oxygen:	10.6	mg/L
A.1			_

**Field Determinations** 

Chlorine, residual:

Conductivity:

Temperature:

Other: Flow:

pH:

**CFS** 

7.1

175

7 R

pH Units

**uMHO** 

TEST: Digestion Metals	METHOD: EPA 200.2					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/04/2009				A Wilson	1/4/2009

TEST: ICP-MS	ME	THOD: EPA 200	0.8					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE		
Arsenic	U	μg/L	0.93	5	M Pattanayek	1/4/2009		
Barium	21	μg/L	2.5	5	M Pattanayek	1/4/2009		
Beryllium	· U	μg/L	0.11	1	M Pattanayek	1/4/2009		
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/4/2009		
Chromium	U	μg/L	2.0	5	M Pattanayek	1/4/2009		
Cobalt	0.16J	μg/L	0.04	1	M Pattanayek	1/4/2009		
Lead	0.29J	μg/L	0.10	1	M Pattanayek	1/4/2009		
Manganese	38	μg/L	0.42	1	M Pattanayek	1/4/2009		
Selenium	U	μg/L	1.3	5	M Pattanayek	1/4/2009		
Strontium	65	μg/L	0.47	1	M Pattanayek	1/4/2009		
Thallium	0.51J	μg/L	0.03	1	M Pattanayek	1/4/2009		
Uranium	0.1J	μg/L	0.01	1 .	M Pattanayek	1/4/2009		
Vanadium	U	μg/L	3.4	5	M Pattanayek	1/4/2009		

TEST: Mercury	METHOD: EPA 245.1							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE		
Mercury	U	µg/L	0.13	0.2	A Wilson	1/4/2009		

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002082004

**Project Name:** 

**Sample Description:** 

Emory River mile 2.1

Sampler Project Name: TVA ASH **Project Site No.:** 

Depth 3.5 feet

Station No.:

Date/Time Collected:

01/02/2009 11:50

Sampler's Name: County:

V. McFall **ROANE - 73** 

**Sample Matrix:** EFO:

Water

Sampling Agency:

Knoxville TDEC-WPC 327.34-20

**Billing Code: Send Report To: Agency Invoiced:** 

TDEC-WPC TDEC-WPC

**Priority Date:** 

**Date/Time Received:** 

01/02/2009 14:50

Received By:

E McCrary

**TEST: Digestion Metals METHOD: EPA 200.2** ANALYTE RESULT MDL MQL UNITS **ANALYZED BY:** DATE

**Field Determinations** 

Dissolved Oxygen: 10.85

Chlorine, residual:

Conductivity:

Temperature:

7.03

67.8

7.55

pH Units

**uMHO** 

mg/L

**CFS** 

pH:

Other:

Flow:

01/04/2009 **Digestion Metals** A Wilson 1/4/2009

TEST: ICP-MS	ME.	ΓHOD: EPA 200	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	U	μg/L	0.93	5	M Pattanayek	1/4/2009
Barium	26	μg/L	2.5	5	M Pattanayek	1/4/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	1/4/2009
Cadmium	U	μg/L	0.41	. 1	M Pattanayek	1/4/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	1/4/2009
Cobalt	0.36J	μg/L	0.04	1	M Pattanayek	1/4/2009
Lead	0.46J	μg/L	0.10	1	M Pattanayek	1/4/2009
Manganese	48	μg/L	0.42	1	M Pattanayek	1/4/2009
Selenium	<b>u</b> ·	μg/L	1.3	5	M Pattanayek	1/4/2009
Strontium	30	μg/L	0.47	1	M Pattanayek	1/4/2009
Thallium	0.10J	μg/L	0.03	1	M Pattanayek	1/4/2009
Uranium	0.04J	μg/L	0.01	1	M Pattanayek	1/4/2009
Vanadium	U	μg/L	3.4	5	M Pattanayek	1/4/2009

TEST: Mercury	WE,					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	µg/L	0.13	0.2	A Wilson	1/4/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002082005

Depth 15 feet

**Project Name:** 

**Sample Description:** 

Emory River Mile 4.0

Sampler Project Name: TVA ASH **Project Site No.:** 

**Station No.:** 

**Date/Time Collected:** 

01/02/2009 12:25

Sampler's Name:

V. McFall

County: **Sample Matrix:**  **ROANE - 73** Water

EFO: Sampling Agency: Knoxville

**Billing Code:** 

TDEC-WPC 327.34-20

**Send Report To:** Agency Invoiced: TDEC-WPC TDEC-WPC

**Priority Date:** 

Date/Time Received:

01/02/2009 14:50

Received By:

E McCrary

**Field Determinations** 

pH: 7.07

Chlorine, residual:

71.1

**uMHO** 

pH Units

Conductivity: Temperature:

7.40

Dissolved Oxygen: 10.65 mg/L

Other:

Flow:

**CFS** 

TEST: Digestion Metals METHOD: EPA 200.2							
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE	
Digestion Metals	01/04/2009				A Wilson	1/4/2009	

TEST: ICP-MS	MET	THOD: EPA 200	0.8			
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Arsenic	U	μg/L	0.93	5	M Pattanayek	1/4/2009
Barium	26	μg/L	2.5	5	M Pattanayek	1/4/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	1/4/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/4/2009
Chromium	U	μg/L	2.0	5	M Pattanayek	1/4/2009
Cobalt	0.31J	μg/L	0.04	1	M Pattanayek	1/4/2009
Lead	0.43J	μg/L	0.10	1	M Pattanayek	1/4/2009
Manganese	47	μg/L	0.42	1	M Pattanayek	1/4/2009
Selenium	U	μg/L	1.3	5	M Pattanayek	1/4/2009
Strontium	30	μg/L	0.47	1	M Pattanayek	1/4/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	1/4/2009
Uranium	0.03J	μg/L	0.01	1	M Pattanayek	1/4/2009
Vanadium	3.8J	μg/L	3.4	. 5	M Pattanayek	1/4/2009

TEST: Mercury METHOD: EPA 245.1						
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	μg/L	0.13	0.2	A Wilson	1/4/2009

J - Estimated value between MDL and MQL

**MDL - Method Detection Limit** 

**MQL - Method Quantitation Limit** 

K00002082006

**Project Name:** 

Sample Description:

Clinch River 4.0

Sampler Project Name: TVA ASH

**Project Site No.:** 

Station No.:

**Date/Time Collected:** 

01/02/2009

Sampler's Name:

M. Atchley

County:

ROANE - 73

**Sample Matrix:** EFO:

Water

Sampling Agency:

Knoxville

**Billing Code:** 

TDEC-WPC 327.34-20

**Send Report To:** 

TDEC-WPC

Agency Invoiced:

TDEC-WPC

**Priority Date:** 

Date/Time Received:

01/02/2009

14:50

12:35

Received By:

E McCrary

**Field Determinations** 

pH:

7.5

pH Units

Chlorine, residual:

Conductivity:

302

**uMHO** 

Temperature: **Dissolved Oxygen: 9.8** 

8.59

mg/L

Other:

Flow:

**CFS** 

TEST: Digestion Metals	MET	METHOD: EPA 200.2				
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Digestion Metals	01/04/2009				A Wilson	1/4/2009

TEST: ICP-MS	METHOD: EPA 200.8					
ANALYTE	RESULT	UNITS	MDL	MQL.	ANALYZED BY:	DATE
Arsenic	U	μg/L	0.93	5	M Pattanayek	1/4/2009
Barium	34	μg/L	2.5	5	M Pattanayek	1/4/2009
Beryllium	U	μg/L	0.11	1	M Pattanayek	1/4/2009
Cadmium	U	μg/L	0.41	1	M Pattanayek	1/4/2009
Chromium	u u	μg/L	2.0	5	M Pattanayek	1/4/2009
Cobalt	0.19J	μg/L	0.04	1	M Pattanayek	1/4/2009
Lead	0.23J	μg/L	0.10	1	M Pattanayek	1/4/2009
Manganese	37	μg/L	0.42	1	M Pattanayek	1/4/2009
Selenium	U	µg/L	1.3	5	M Pattanayek	1/4/2009
Strontium	120	μg/L	0.47	-1	M Pattanayek	1/4/2009
Thallium	U	μg/L	0.03	1	M Pattanayek	1/4/2009
Uranium	0.33J	μg/L	0.01	1	M Pattanayek	1/4/2009
Vanadium	U	μg/L	3.4	5	M Pattanayek	1/4/2009

TEST: Mercury	WE					
ANALYTE	RESULT	UNITS	MDL	MQL	ANALYZED BY:	DATE
Mercury	U	μg/L	0.13	0.2	A Wilson	1/4/2009

J - Estimated value between MDL and MQL

MDL - Method Detection Limit

MQL - Method Quantitation Limit